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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,904	09/27/2001	Hijin Sato	15689.81	3227

7590 01/08/2007
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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
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2614

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	09/964,904		SATO ET AL.	
	Examiner		Art Unit	
	Melur Ramakrishnaiah		2643	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8-25-03, 7-8-03, 11-17-04, 6-9-05</u> | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 3-9, 10-13, 14, 15, 17-20, 21, 23-24, are rejected under 35 U.S.C 102(b) as being anticipated by Richardson (GB 2271486A).

Regarding claim 1, Richardson discloses a mobile station that can communicate with a first and second communication systems, the mobile station being characterized by comprising: reception means (for example 76, fig. 2) for receiving a transmitted signal from at least one base station (28, fig. 2) of the first communication system (fig. 1), determination means (reads on RSSI measuring circuit) for determining whether or not a point at which the signal has been received belongs to a cell that in a service area of the at least one base station of the first radio communication system, and a transmission means in (76/70, fig. 2) for transmitting a result of the determination by the determination means to the second radio communication system (44/46, fig. 1; abstract, figs. 1-4, claims 1-31; page 2, line 14 – page 9, line 6).

Regarding claim 3, Richardson discloses a cell forming process apparatus characterized by comprising: reception means for receiving, via second radio communication system, a result of determination of whether or not a mobile station that can communicate with a first and the second radio communication systems belongs to a cell that is a service area of at least one base station (28, figs. 1-2) of the first radio

communication system as well as location information of the mobile station, the result and the location information being transmitted by the mobile station (68/70, fig. 2), selection means in (44/46, figs. 1-2) for selecting a base station for which a corresponding cell of the first radio communication system is to be changed, and instruction means in (44/46) for instructing the base station selected by the selection means to change the cell thereof (fig. 1; abstract, figs. 1-4, claims 1-31; page 2, line 14 – page 9, line 6).

Regarding claim 10, Richardson discloses a cell control method for cell control system comprising a mobile station that can communicate with a first and second communication systems and a call forming process apparatus for instructing a base station of the first radio communication system to change a cell thereof, the method being characterized in that: the mobile station (68/70, fig. 2) receive a transmitted signal from at least one base station (28, figs. 1-2) of the radio communication system, determining (reads on RSSI measuring circuit) whether or not this receiving point belongs to a cell that is a service area of at least one base station (28, figs. 1-2) of the radio communication system, and transmits a result of the determination to the cell forming process apparatus (reads on 44/46, fig. 1) via second radio communication system, and the cell forming process apparatus selects a base station for which corresponding cell of the first radio communication system is to be changed, on the basis of the determination result transmitted by the mobile station (68/70, fig. 1), location information retrieved when the mobile station executes the determination process, and location information on the at least one base station of the first radio

communication system, and instructs the selected base station to the change the cell thereof (abstract, figs. 1-4, claims 1-31; page 2, line 14 – page 9, line 6).

Regarding claim 14, Richardson discloses a cell control system comprising a mobile station that can communicate with a first and second radio communication systems and cell forming process apparatus for instructing a base station of the first radio communication system to change cell thereof, the system being characterized in that: the mobile station comprises reception means (for example 76, fig. 2) for receiving transmitted signal from at least one base station of the first radio communication system (fig. 1), determination means (reads on RSSI measuring circuit 95, fig. 2) for determining whether or not a point at which signal has been received belongs to a cell that is a service area of at the at least one base station (for example 28, figs. 1-2) of the first radio communication system, and transmission means (76, fig. 1) for transmitting a result of the determination by the determination means to the second radio communication system (fig. 1), and in that the cell forming process apparatus (reads on 44/46, fig. 1) comprises: reception means in (44, fig. 2) for receiving, via second radio communication system, a result of the determination of whether or not mobile station that can communicate with a first and second radio communication system belongs to a cell that is a service area of at least one base station (for example 28, figs. 1-2) of the first radio communication system as well as location information on the mobile station, the result and the location information being transmitted by the mobile station, selection means in (44, fig. 2) for selecting a base station for which a corresponding cell of the first radio communication system is to be changed, and instruction means in (44, fig. 2)

for instructing the base station selected by selection means to change the cell thereof (abstract, figs. 1-4, claims 1-31; page 2, line 14 – page 9, line 6).

Regarding claim 15, Richardson discloses a cell control of controlling a cell that is service area of each base station, the method being characterized by comprising: a cell determining step of receiving signals from the the base stations through particular channels and determining cells of the base stations depending on results of synchronization, a location information obtaining step of obtaining location information on the mobile terminal from a location information obtaining section (reads on GPS receiver 80, fig. 2), a location information transmitting step of transmitting results of the determination at the cell determining step and the location information to those of the base stations with which the mobile terminal can synchronize, a distance calculation step of calculating distance between the mobile terminal and the base stations by mapping the location of the mobile terminal on the basis of the location information transmitted at the location information transmitting step (page 10, line 22 – page 11, line 23; page 12, line 3 – line 7; page 13, line 1- line 4), a selection step of selecting a base station that has the shortest distance as calculated at the distance calculating step, a change information transmitting step of transmitting cell change information to the base station selected at the selection step, and a changing step of changing the cell of the base station on the basis of the cell change information transmitted at the change information transmitting step (page 14, line 1 – line 26; page 15, line 2 – line 13).

Claim 21 is similar to claim 15 and the claim is rejected for the same reasons as set forth in the rejection of claim 15.

Regarding claims 2, 4-9, 11-13, 17-20, 23-26, Richardson further teaches the following: determination means (reads on RSSI measuring circuit 95, fig. 2) makes the determination on the basis of whether or not synchronization is established with a perch channel (this step is implied in as much as the reference teaches mobile station 68 measures RSSI of the base station) of at least one base station of the first radio communication system, selection means in (44/46, fig. 1) includes mapping means for mapping cell and non-cell areas relating to least one base station of the first radio communication system, on the basis of result received by the reception means, selection means includes calculation means for calculating distance between the mobile station (68/70, fig. 2) and at least one base station (28, figs. 1-2) of the first radio communication system on the basis of the location information on the mobile station received by the reception means as well as location information on at least one base station and means for selecting a base station that is closest to the mobile station, as a target the cell of which is to be changed, on the basis of the result of calculation means, selection means selects a base station having the lowest utilization of radio resources, as the target the cell of which is to be changed, accumulation means (200, fig. 1) for accumulating the result therein which has been received by the reception means so that result accumulated in the accumulation means can be supplied to the selection means, location information on the mobile station is retrieved by the second radio communication system, the location information can be retrieved by the at least one base station of the first radio communication system, location information on at least one base station of the first radio communication system is retrieved by the cell

forming apparatus (reads on 44/46, fig. 1) on the basis of an identifier of the base station transmitted by the mobile station together with the determination result, reference distance calculating step of calculating reference distance on the basis of transmission power from the base stations in advance, and in that: the selection step can select from base stations whose distance to the mobile terminal are shorter than the respective reference distance, utilization calculation step of calculating utilization of the base stations and a utilization transmitting step of transmitting utilization, and in that: the selection step can select from the base stations having the lowest utilization as transmitted at the utilization transmitting step (abstract, figs. 1-4, claims 1-31; page 2, line 14 – page 9, line 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16, 22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson in view of Hardouin (US PAT: 5,884,163).

Richardson differs from claims 16, 22, in that he does not teach the following: the location information transmitting step can obtain the determination results and location information for those the base stations with which the mobile terminal cannot synchronize, from the storage section, and transmitting the results and the location

information to those of the base stations with which the mobile terminal can synchronize.

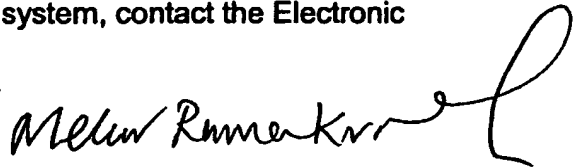
However, Hardouin discloses automatic learning of wireless coverage which teaches the following: the location information transmitting step can obtain the determination results and location information for those the base stations with which the mobile terminal cannot synchronize, from the storage section, and transmitting the results and the location information to those of the base stations with which the mobile terminal can synchronize (figs. 1-2, 4, claims 7-12, col. 1 lines 33-60; col. 2 lines 17-63).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Richardson's system to provide for the following: the location information transmitting step can obtain the determination results and location information for those the base stations with which the mobile terminal cannot synchronize, from the storage section, and transmitting the results and the location information to those of the base stations with which the mobile terminal can synchronize as this arrangement would provide means for automatically collecting information about problem areas in cellular communication system so that the system can be reconfigured to address problem areas as taught by Hardouin.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 2643